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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,136	08/01/2003	John R. Hattersley	562.009PA	3093

7590 03/25/2004

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EXAMINER
TRAIL, ALLYSON NEEL

ART UNIT	PAPER NUMBER
2876	

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/633,136	HATTERSLEY ET AL.	
	Examiner	Art Unit	
	Allyson N Trail	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 9 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-9 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 01 August 2003 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 8/01/03.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Page 6 of the specification describes an optical axis 60 in figure 2, however the optical axis 60, is not shown in the figure. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 2, and 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feng (6,123,263) in view of Pidhirny et al (5,786,586).

Feng teaches the following in regards to claim 1:

"A portable data collection device having a modular imaging-based dataform reader. The dataform reader includes a two dimensional imaging assembly adapted to image and decode a dataform printed using ink that fluoresces when illuminated by ultraviolet light." (Abstract).

"Fluorescence from the dataform is focused by an optic assembly onto the photosensor array forming an image of the dataform. Image processing circuitry is provided for processing and decoding the image of the dataform." (Abstract).

Figure 9 shows a focusing assembly 300.

"The targeting and illumination assembly also includes an illumination assembly providing illumination in a range of the electromagnetic spectrum suitable to cause the ultraviolet light active fluorescent ink of the target dataform to fluoresce. A flash tube strobing illumination source is focused through an ultraviolet light filter to provide high intensity, strobing illumination in the ultraviolet range of the electromagnetic spectrum, e.g., radiation having a wavelength range centered at about 380 nm." (Col. 2, lines 47-55). Although it is not specifically stated that the radiation is black light radiation, illumination in the ultraviolet range having a wavelength between 390 nm and 420 nm is considered to be black light radiation. Feng teaches using a wavelength center at about 380 nm, which is well within the black light range.

"The ink fluoresces when the ink is excited by radiation or illumination having a wavelength of around 365 nm." (Col. 6, lines 44-46).

"The portable, hand held data collection device of the present invention is shown generally at 100 in FIGS. 5-7. The portable data collection device 100 includes a housing 110 supporting a dataform reader. The dataform reader comprises a two dimensional charge coupled device (CCD) photosensor array imaging assembly 102. The imaging assembly 102 is capable of reading, that is, imaging and decoding a target dataform printed using ultraviolet light active ink when the target dataform is located

within an imaging target area 104 (shown schematically in FIGS. 8 and 14) of the imaging assembly 102 and the imaging assembly is actuated for a dataform reading session." (Col. 7, lines 44-55).

"The gripping portion 114 also includes a small opening through which a distal portion of an indicator light emitting diode (LED) 132 is visible. The indicator LED 132 alternates between three colors." (Col. 9, lines 21-24).

Feng teaches the following in regards to claim 5 and 6:

"A flash tube strobing illumination source is focused through an ultraviolet light filter to provide high intensity, strobing illumination in the ultraviolet range of the electromagnetic spectrum, e.g., radiation having a wavelength range centered at about 380 nm." (Col. 2, lines 51-55). Because the illumination source provides a radiation having a wavelength of about 380 nm, it is in the blue to near ultraviolet region.

Feng teaches the following in regards to claim 7:

"Wavelengths of illumination produced by the flash tubes 414a, 414b which are not in the ultraviolet range, e.g., visible range illumination, are filtered out by the ultraviolet filters 420a, 420b. A suitable ultraviolet filter is product no. UG-1 sold by Reynard Corporation of San Clemente, Calif. The Reynard UG-1 filter is a black glass filter having a transmission range of 300 to 400 nm." (Col. 14, lines 18-24).

Feng teaches the following in regards to claim 8:

"As discussed above, the outer optic surface 310 of the outermost lens L1 of the optic assembly 300 includes the color filter coating 335 that functions as an ultraviolet light filter, that is, the coating has a narrow bandwidth at excitation and permits only light

in the visible spectrum to be focused on the photosensor array 202. Thus, the visible light emitted by the fluorescence of the ultraviolet active ink cells is focused on the photosensor array 202." (Col. 15, lines 24-29).

Feng teaches the following in regards to claim 9:

Figure 18 shows the ultraviolet light source mounted at a distal face of the housing.

Feng's teachings are discussed above. Feng however fails to teach a shield for guiding the black light emitted by the diodes and also fails to teach the shield being made of acrylic.

Pidhirny et al teaches the following in regards to claims 1 and 2:

Figure 1 shows a transparent spacing element or guide 20 is disposed on the front portion of the reader head 15. The guide 20 is configured as a frustum of a cone.

Pidhirny et al teaches the following in regards to claim 4:

"The guide 420 is constructed of a transparent material such as glass or plastic." (Col. 5, line 65 – Col. 6, line 2). Although it is not specifically stated that the material be acrylic, acrylic is a form of plastic and therefore would be obvious that one could chose to use acrylic and still be using a plastic material.

In view of Pidhirny et al's teachings it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a guide at the end of the reader. A guide is a well-known feature used in barcodes. One would be motivated to use a light guide to be sure that the entire image is being scanned, to verify that only the

desired image is scanned, and to block out light which may interfere with the reading of the image.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Feng (6,123,263) in combination with Pidhirny et al (5,786,586) and in further view of Hattersley et al (2003/0192949).

Feng's teachings in combination with Pidhirny et al's teachings are discussed above. The combination however fails to teach the plate being oriented at a non-right angle to the optic axis.

Hattersley et al teaches the following in regards to claim 3:

"In another preferred embodiment, the diffuse illuminator has a light conductor in the form of a transparent prism, e.g., of clear acrylic, having a one or preferably more than one reflective surface for deflecting illumination at a predetermined angle relative to the optic axis." (Page 2, paragraph 0012).

In view of Hattersley et al's teachings it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the plate of the shield being oriented at a non-right angle to the optical axis. Although Pidhirny et al shows the optical axis appearing to be at a right angle to the plate it is not disclosed which way the axis is truly oriented. Having the plate not be at a right angle to the axis allows for the scanner to be used in different positions so that the scanner does not have to be directly adjacent or lined up exactly with the image being read.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Cyr et al (5,959,296), Nimura et al (2004/0041030), Laser (5,773,808), Doljack (6,595,422), Berson et al (5,525,798), Kolesar et al (6,177,683).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Allyson N. Trail* whose telephone number is (571) 272-2406. The examiner can normally be reached between the hours of 7:30AM to 4:00PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (571) 272-2398. The fax phone number for this Group is (703) 872-9306.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [**allyson.trail@uspto.gov**].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Allyson N. Trail
Patent Examiner
Art Unit 2876
March 16, 2004

Jared J. Fureman
JARED J. FUREMAN
PRIMARY EXAMINER